



Institute for Materials Science

UNCLASSIFIED

Institute for Materials Science Distinguished Lecture Series



Prof. Dr. Joël Mesot
Director, Paul Scherrer Institute, Switzerland

Probing Excitations in Strongly Correlated Electron Systems: Recent Highlights Obtained at the Large-Scale Facilities of the Paul Scherrer Institute

Thursday, June 11, 2015

2 - 3 PM

TA-03, Bldg. 1698, Room A103 (MSL Auditorium)

Abstract: The Paul Scherrer Institute, PSI, is the largest research center for natural and engineering sciences within Switzerland. One of its main missions is to conceive, realize and run so-called large-scale facilities. With muon, neutron and photon beams PSI offers yearly, on a single site and within a single organization, three complementary techniques to thousands of Swiss and international researchers from academia and industry. About two thirds of the performed experiments are taking place in the field of materials science, of which a large portion related to strongly correlated materials. In this talk I shall present highlights obtained on various superconducting materials made possible thanks to recent technical breakthroughs.

The last part of the presentation will be dedicated to the planned next large-scale facility of PSI: the X-ray free electron laser SwissFEL and its future experimental capabilities.

Biography: Prof. Dr. Joël Mesot is, since 2008, director of the Paul Scherrer Institute (PSI), the largest publicly funded research institute in Switzerland and Professor at ETH Zurich (ETHZ) and EPF Lausanne. Since July 2010, he is member of the ETH Board.

After physics studies at ETHZ, he performed his PhD both at ETHZ and the Institute Laue Langevin (ILL), France, in the field of solid state physics using neutron scattering. After a first stay at PSI, he spent several years at Argonne National Laboratory, USA, where he specialized in synchrotron techniques. He returned to Switzerland in 1999 and later took over the lead of the shared Laboratory for neutron scattering between ETHZ and PSI.

For his achievements he has been awarded in 1995 the IBM Award of the Swiss Physical Society and the Latsis Prize of ETHZ in 2002. From 2003 to 2005, he chaired the scientific committee "Structural and Magnetic Excitations" of ILL and from 2003 to 2008 he was editor of Neutron News. Joël Mesot is a member of a number of boards, among which the Senate of the Helmholtz Association, the International Science Policy Committee of the NRC Kurchatov Institute (Russia) and the Neutron Advisory Board of Oak Ridge National Laboratory.

For general information contact Caryll Blount, IMS Administrator
caryll@lanl.gov • 665-3950

*Hosted by Alexander Balatsky * Institute for Materials Science*